



**The Dow Chemical Company**

Midland, MI 48674

USA

2020 Dow Center D-222

January 21, 2015

VIA CDX

Document Processing Center (7407M)  
(Attn: TSCA Section 8(e) Coordinator)  
Office of Pollution Prevention and Toxics  
Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460-0001

Re: A mixture of 1,3-Cyclohexanedicarboxaldehyde CASRN 55309-54-1 (52.5%)  
and 1,4-Cyclohexanedicarboxaldehyde CASRN 33424-83-8 (47.0%)

Dear Sir/Madam:

The following information is being submitted by The Dow Chemical Company (Dow) pursuant to current guidance issued by EPA indicating EPA's interpretation of Section 8(e) of the Toxic Substances Control Act. Dow has made no determination as to whether a significant risk of injury to health or the environment is actually presented by the findings.

CrI:CD(SD) rats 5/time-mated females/dose received test volumes of 0, 250, 500, or 750 mg/kg/day via oral gavage for 7 days/week from gestation day (GD) 6-20.

Oral gavage administration of the mixture resulted in maternal toxicity at all dose levels tested but no indication of embryo/fetal lethality at any dose level tested. In the 750 and 500 mg/kg/day groups, there was a treatment-related decrease in maternal body weight, body weight gain, and feed consumption beginning at the GD 9-12 or 6-9 interval, respectively, and continuing through the GD 18-21 interval. Treatment-related noisy respiration was observed in one dam in each of the 750 mg/kg/day and 500 mg/kg/day groups. A primary treatment-related increase was seen in absolute and relative maternal liver weights in the 750 mg/kg/day group. In addition, a treatment-related increase in relative maternal kidney weights was observed in the 750 mg/kg/day group that was deemed secondary to decreased body weight.

At all dose levels, point of contact irritation of the stomach was observed. In the 750 and 500 mg/kg/day groups, stomach gross pathology findings in all animals included multifocal or focally



extensive thickening of the non-glandular mucosa. Additional gross findings in some animals given 750 or 500 mg/kg/day included glandular and nonglandular mucosal ulceration, glandular mucosal hyperemia, and gastric wall abscesses. A single animal in the 250 mg/kg/day group had a gross focal thickening of the non-glandular stomach. Microscopically, this focal observation was associated with moderate epithelial ulceration, subacute inflammation, hyperkeratosis, and hyperplasia. Histological findings (without a gross pathology correlate) of very slight gastric epithelial hyperkeratosis and hyperplasia at the limiting ridge were present in four of five animals in the 250 mg/kg/day group.

Questions may be addressed to the undersigned.

Sincerely,

A handwritten signature in black ink that reads "Beth Lohrke Stieve". The signature is written in a cursive style with a large, stylized 'B' and 'S'.

Beth Lohrke-Stieve  
PH: 989-638-1472  
FAX: 989-638-9933  
E-MAIL: [blstieve@dow.com](mailto:blstieve@dow.com)